



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : G06F 17/60	A1	(11) International Publication Number: WO 00/51050 (43) International Publication Date: 31 August 2000 (31.08.00)
(21) International Application Number: PCT/US00/04790		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
(22) International Filing Date: 25 February 2000 (25.02.00)		
(30) Priority Data: 60/122,024 26 February 1999 (26.02.99) US		
(71) Applicant (for all designated States except US): E*COM INTERACTIVE, INC. [-US]; 4 Burris Road, Somerville, NJ 08876 (US).		
(72) Inventors; and		
(75) Inventors/Applicants (for US only): BONGIOVANNI, Michele [US/US]; 4 Burris Road, Somerville, NJ 08876 (US). COOK GALLI, Margaret [US/US]; 8th Street and Giudano Lane, Hammonton, NJ 08037 (US).		
(74) Agent: SOFER, Joseph; Sofer & Haroun, LLP, Suite 1921, 342 Madison Avenue, New York, NY 10173 (US).		
(54) Title: SYSTEM AND METHOD OF PROVIDING PERSONALIZED E-COMMERCE RECOMMENDATIONS VIA THE INTERNET		
(57) Abstract		
A personalized shopping system (100) is provided, configured to generate e-commerce recommendations for products and/or services via the Internet, based on either an automated, semi-automated, or manual selection process, so that individuals can search, view, and purchase products and services that are distinctly tailored to their individual tastes and preferences. The method of providing the personalized e-commerce recommendations comprises the steps of generating a database (108) having a plurality of products, wherein each of the products are associated with at least one preference criteria from a plurality of preferences criteria. Thereafter, information associated with a user profile is stored for at least one user based on a selection of preferences by the user from the plurality of preferences criteria. The personalized shopping system (100) then provides product recommendations to the at least one user corresponding to the created profile.		

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakhstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

SYSTEM AND METHOD OF PROVIDING
PERSONALIZED E-COMMERCE
RECOMMENDATIONS VIA THE INTERNET

Related Applications

This application is based upon and claims priority to Applicant's pending U.S. Provisional Application Serial No. 60/122,024, filed on February 26, 1999, which is 5 incorporated by reference herein as if fully set forth in its entirety.

Field of the Invention

This invention relates generally to the field of sales and marketing, and in particular, to a 10 personalized e-commerce shopping system for providing recommendations to individuals based on their corresponding profiles and preferences.

Background of the Invention

15 The Internet is quickly becoming the preferred environment for communication. Indeed, many individuals now interact via electronic mail (e-mail), hypertext transfer protocol (http), and other on-line processes more than even by telephone or traditional mail. The number of people in cyberspace is growing exponentially and our system of computers and networks are noticeably increasing in size and scope to handle the tremendous load.

20

Perhaps the foremost element of the Internet causing such explosive growth is electronic commerce (e-commerce). The convenience offered by on-line shopping, not to mention the added speed and efficiency, cannot be easily overcome. Indeed, an individual can order a book, for example, in a matter of seconds at any hour of the day, without having 25 to wait in line or spend countless hours locating a possibly out-of-stock text.

According to Internet researcher eMarketer, "online shopping revenues are expected to reach nearly \$7.3 billion in 4th quarter 1999, with roughly 34 million buyers. Nearly 38.8 million people, or 58% of active users online, will buy online in 1999." Although only 5 roughly 3% of all retail spending is presumed to derive from online spending, the percentage is increasing on a daily basis.

Unfortunately, e-commerce has not yet fully overcome many of the problems associated with shopping. For example, the International Mass Retailing Association reported in a 10 recent survey that "among adults with an annual income greater than \$50,000.00, 58% said they had trouble finding the time to shop." This number is expected to grow each year as more dual-income families maintain that free time is more of a luxury than a reality. Thus, although e-commerce, at present, offers many conveniences over off-line shopping methods, individuals still desire time-saving shopping tools and systems that 15 will help moderate the required shopping time.

There are several reasons why e-commerce today does not fully satisfy the needs of shoppers. Firstly, the Internet is a big place and finding the right site to shop is difficult. Even if an individual has nearly limitless time to search the Internet, there is often the 20 chance that he will lose himself among the plethora of low quality and otherwise undesirable e-commerce sites. Secondly, even after locating a worthwhile e-commerce site, finding the right product to purchase is yet more difficult. This problem is especially true when shopping for someone else.

Admittedly, Internet shopping guides, search engines, and consumer guides, among other resources, are available to assist with the shopping process. All, however, have noticeable shortcomings. Specifically, such consumer guides and searching systems are not designed to help on a personal level. Although some may assist with the initial step of finding a good quality site, they are mostly unsuccessful when it comes to actually finding the right product to buy. In fact, the above-mentioned systems typically recommend the same products to all users, which is hardly equivalent to personalized shopping. Today's busy online consumer requires the assistance of a personalized shopping system to save time and money finding unique gift ideas and merchandise that suits their individual tastes.

Thus, what is needed is an e-commerce system that provides the tools and means for assisting individuals with their personalized shopping needs, and in particular helping individuals identify the precise items they wish to purchase in a time-efficient manner. What is further needed is a dynamic system than can utilize the larger resources of the Internet to more fully satisfy such shopping needs, rather than being limited to products reviewed by a consumer guide or other resource.

Objects and Summary of the Invention

5 It is thus a general object of the present invention to provide a system and method for providing personalized e-commerce recommendations to individual shoppers.

A more specific object of the invention is to provide a system and method for providing personalized e-commerce recommendations for products and services via the Internet
10 based on profiles and preferences supplied by individual shoppers.

Yet another object of the invention is to provide a system that offers a personalized e-commerce shopping experience, wherein individuals can search for and purchase products and services corresponding to personalized preferences for themselves or for
15 their friends and family.

A further object of the invention is to provide a system that offers on-line personal shoppers who can interact with the users in real time in order to fulfill their shopping and service needs.

20 A still further object of the invention is to provide a system that offers on-line personal shoppers who are located in various geographic locations in order to fulfill shopping and service needs in areas remote to the user.

In accordance with one object of the invention a personalized shopping system is provided, configured to generate e-commerce recommendations for products and/or services via the Internet, based on either an automated, semi-automated, or manual selection process, so that individuals can search, view, and purchase products and services that are distinctly tailored to their individual tastes and preferences. Thus, users are enabled to enter personal data and create shopping profiles for themselves and others, wherein suggestions are provided by the system based on products and services that correspond to their unique profiles.

10 According to one embodiment of the invention, users access the personalized shopping system of this invention in order to search or view products and services from a database system. The products offered here via the database system are typically configured to have preference and attribute criteria so that specific products with preferences and/ or attributes that most closely match users' tastes and interests can be recommended. Once 15 a desired product is found, the user may then purchase the item(s) via an e-commerce site.

As mentioned above, the shopping system of this invention is configured to provide personalized shopping experiences to the individual users (shoppers) who access the 20 system. This is accomplished primarily via a two-stage process. Illustratively, users first access the shopping system and provide the database system with responses to a plurality of queries. Such queries may request data, including those relating to individual profile information, personal preferences, hobbies, etc. Second, once the database system has

the requested information, the user may then search for or request products, which are provided by the system or by a professional shopper based on relationships between the products in the database system and the information supplied by the user.

5 For example, a user that provides the system with information detailing his or her interest in golf may receive product recommendations related to the categories of golf. Furthermore, a user may supply more complex information such as his or her preferred merchant, clothing sizes, favorite colors, clothing style preferences, etc., wherein products that specifically match those criteria are provided as recommendations to the
10 user.

Accordingly, the database system is configured to store a plurality of products, and for each product associate one or more of a plurality of categories, attributes, preferences, etc., so the products can thereafter be recommended on a personalized basis to shoppers
15 based on these associations, as described above.

According to one embodiment of the invention, a professional shopper may be consulted to provide the user with a more personalized or sophisticated service. Such professional shoppers may even be specialized local or international shoppers / concierges for
20 assisting users with their specific needs around the world. For example, a local professional shopper who has expertise with shopping, entertainment, or other services in a particular small town can offer his or her services via the system of this invention.
According to another embodiment, a plurality of professional shoppers performing

concierge type services become affiliates with the system. Users may then access the services of the concierge via the system. In exchange for referring affiliate concierge services to the users the system calculates a referral or commission fee that is charged to the affiliate.

5

The above description sets forth rather broadly the more important features of the present invention in order that the detailed description thereof that follows may be understood, and in order that the present contributions to the art may be better appreciated. Other objects and features of the present invention will become apparent from the following 10 detailed description considered in conjunction with the accompanying drawings. It is to be understood, however, that the drawings are designed solely for the purposes of illustration and not as a definition of the limits of the invention, for which reference should be made to the appended claims.

15

Detailed Description of the Drawings

In the drawings in which like reference characters denote similar elements throughout the several views:

5

FIG. 1 shows a block diagram of the personalized electronic commerce shopping system, according to one embodiment of the invention;

10 10

FIG. 2 shows a more detailed view of the database system of Fig. 1, according to one embodiment of the invention;

15

FIG. 2b illustrates a data entry form, where product information and relationships for one corresponding product from the product database is entered, according to one embodiment of the invention;

20 20

FIG. 3a illustrates the Internet home page user interface provided to users (shoppers) accessing the system, according to one embodiment of the invention;

FIG. 3b is a flow diagram that illustrates the steps that may be performed by the system when a user enters the home page of the system, according to one embodiment of the invention;

FIG. 4a illustrates the search user interface web page of the I-Shop section of the system,

according to one embodiment of the invention;

FIG. 4b illustrates a profile data entry web page of the I-Shop section of the system,

according to one embodiment of the invention;

5

FIG. 4c illustrates a first preferences data entry web page for female users (shoppers) of

the system, according to one embodiment of the invention;

FIG. 4d illustrates a second preferences data entry web page for female users (shoppers)

10 of the system, according to one embodiment of the invention;

FIG. 4e illustrates a first preferences data entry web page for male users (shoppers) of the

system, according to one embodiment of the invention;

15

FIG. 4f illustrates a second preferences data entry web page for male users (shoppers) of

the system, according to one embodiment of the invention;

FIG. 5a illustrates the main user interface web page of the Gift-Shop section of the

system, according to one embodiment of the invention;

20

FIG. 5b illustrates the calendar user interface web page of the Gift-Shop section of the

system, according to one embodiment of the invention;

FIG. 5c illustrates the calendar event set-up user interface web page of the Gift-Shop

section of the system, according to one embodiment of the invention;

5 FIG. 5d illustrates the main user interface web page of the Local-Shop section of the

system, according to one embodiment of the invention;

FIG. 5e illustrates the user interface web page of an example local professional shopper,

according to one embodiment of the invention;

10 FIG. 6 illustrates a flow diagram of the relevant steps taken by the users (shoppers) when

using the system, according to one embodiment of the invention;

FIG. 7 illustrates a flow diagram of the relevant steps taken by the professional shoppers

(administrators) when using the system to respond to user (shopper) requests, according

15 to one embodiment of the invention; and

FIG. 8 illustrates a flow diagram of the relevant steps used by the personalized e-

commerce system of this invention, according to one embodiment of the invention.

Detailed Description of the Invention

With initial reference to Fig. 1, a personalized electronic commerce (e-commerce) shopping system 100 is shown, according to one embodiment of the invention, for 5 providing e-commerce content that is personalized to the unique preferences or criteria of individual shoppers (users). Essentially, personalized shopping system 100 is configured to generate e-commerce recommendations via the Internet, based on either an automated, semi-automated, or manual selection process, so that individuals can search, view, and purchase products that are distinctly tailored to their individual tastes and preferences.

10 Thus, users are now able to enter personal data and create shopping profiles for themselves and others, wherein suggestions are provided by the system based on products and services that correspond to their unique profiles. It is understood, as will be explained in more detail below, that in alternative embodiments the system described herein can employ telecommunication links other than the Internet. Moreover, in yet 15 other embodiments, the system of this invention can similarly be adopted to provide personalized suggestions for products and services other than e-commerce content.

With continued reference to Fig. 1, personalized shopping system 100 comprises an administration component 106, a database system 108, a Web server component 112, and 20 an e-commerce component 110. The administration component, as will be described in more detail below, among other things, facilitates the manipulation of product data, wherein the products stored in database system 108 are assigned categories, preferences, relationships, and other criteria for subsequent use by shoppers and administrators of the

system. Specifically, these assignments influence the personalized shopping experience of individual users because the system matches the unique profiles of users with the unique criteria assigned to each product in the database system. The products having criteria that match the profiles of a particular one or more users become that users' product recommendations. Certain administrators, such as professional shoppers, also use the administration component as a tool when suggesting products to individual shoppers.

Database system 108 provides storage for the above-mentioned product associations and relationships generated via the administration component. In addition, database system 108 stores other necessary data, including actual product and service information, so that search operations, among other tasks, can subsequently be employed. According to one embodiment, the product and service information is imported into the database system via merchant component 102. The merchant component is an external component linked to product data from a plurality of external vendors both on and off the Internet. The functionality and structure of the database system will be described in more detail below with reference to Fig. 2.

Web server component 112 is configured to communicate with database system 108, administration component 106, and e-commerce component 110, and also allows the system to interact, via the Internet 150, with the shoppers (users), and professional shoppers (administrators), shown respectively in Fig. 1, as users 118a-118c and professional shoppers 120a-120c. Specifically, web server component 112 comprises a

user (shopper) interface component 114, which interfaces with users 118a-118c, and a professional shopper / local / international concierge interface component 116, which interfaces with professional shoppers and/or concierges 120a-120c. It is noted that within the context of the present invention, the term professional shopper, personal shopper and concierge may be used interchangeably. These interfaces enable users and administrators to access and communicate with the shopping system of this invention. According to one embodiment of the invention, interface components 114 and 116 comprise web pages published via a Website located on web server 112.

10 Thus, users 118a-118c can access the personalized shopping system of this invention in order to search or view products and services from database system 108. The products offered here via the database system are typically configured to have preference and attribute criteria so that specific products with preferences and/ or attributes that most closely match users' tastes and interests can be recommended. Once a desired product is 15 found, the user may then purchase the item(s) via e-commerce component 110, which either directly processes the sale or forwards the user to an external e-commerce site which in turn processes the sale.

It is understood that various hardware and software systems can be used to employ the 20 above-mentioned components, as is commonly understood to those skilled in the art. For example, according to one embodiment of the invention, database system 108 can be configured to operate via Microsoft SQL Server and Microsoft Site Server. The administration component, the web server software, and other high level aspects of the

system, may utilize COM objects, XML streams, SMTP service, and MTS. Similarly, the interface components of this system can be implemented with Visual Basic, JavaScript, HTML, ASP, etc. Of course, the system of this invention is not dependent on any of the above listed components and can be implemented in numerous other fashions 5 as well.

With reference to Fig. 2, a more detailed view of database system 108 is shown, according to one embodiment of this invention. Database system 108 comprises databases 200-216, including a products and services (items) database 200, a categories database 202, an attributes database 204, a preferences database 206, a user database 10 208, a merchant database 210, an administrators / professional shopper database 212, an orders database 214, and an activity database 216. Product database 200 is configured to store information and relationships associated with each of the products within the system. An example database table, which stores such product information, is shown as 15 product information table 218.

Product information table 218, according to one embodiment of the invention, represents the specific data fields used for storing each product in the product database. Thus, each product in the product database has entries corresponding to the data fields in product 20 information table 218. Illustratively, with reference to Fig. 2, each product in the product database comprises an 'ItemID' field, which stores for each product a unique number identifying that product from the other products in the database. Furthermore, information table 218 comprises (1) an 'ItemName' field, for storing the name of each

product, (2) a 'Description' field, for storing a description of each product, (3) an 'ItemURL' field, for storing an Internet URL referencing an e-commerce site selling such a product, (4) an 'Image' field for storing an image for each product, (5) a 'Brand' field, for storing the brand name or other distinctive feature for each product, (6) a 5 'MerchantID' field, for storing links to the one or more merchants that sell such a product, (7) a 'Price' field, for storing the price of each product, (8) a 'categories' field for storing links to the plurality of categories corresponding to each product, (9) an 'attributes' field for storing links to the plurality of attributes corresponding to each product, (10) a 'preferences' field for storing links to the plurality of preferences 10 corresponding to each product, and (11) a 'related items' link for storing links to the plurality of related items corresponding to each product. The database relationships underlying the links stored in the 'merchantID,' 'categories,' 'attributes,' 'preferences,' and 'related items' fields will be described in more detail below.

15 As mentioned above, shopping system 100 is configured to provide personalized shopping experiences to the individual users (shoppers) who access the system. This is accomplished primarily via a two-stage process. Illustratively, users first access the shopping system and provide database system 100 with responses to a plurality of queries. Such queries may include data, including those relating to individual profile 20 information, personal preferences, hobbies, etc. The specific queries and information requested, according to one embodiment of the invention, will be described in more detail below. Second, once the database system has the requested information, the user may then search for or request products, which are provided by the system or by a

professional shopper based on relationships between the products in the database system and the information supplied by the user.

For example, a user that provides the system with information detailing his or her interest
5 in golf may receive product recommendations related to the categories of golf.
Furthermore, a user may supply more complex information such as his or her clothing
sizes, favorite colors, clothing style preferences, etc., wherein products that specifically
match those criteria are provided as recommendations to the user. A more detailed
sampling of the various categories and relationships available with shopping system 100,
10 according to one embodiment of the invention, is described below.

Accordingly, product database 200 is configured to associate with each product, one or
more of a plurality of categories, attributes, preferences, etc., so the products can
thereafter be recommended on a personalized basis to shoppers based on these
15 associations, as described above. Product database 200, as well as other databases within
the database system, generates and stores such associations, according to one
embodiment of the invention, via relational database relationships, such as one-to-one,
many-to-many, and one-to-many relationships. The use and creation of such
relationships is commonly understood to those skilled in the art and will not be described
20 further.

As mentioned above, with reference to product information table 218, five database
relationships are shown. These include (1) a relationship between product information

table 218 (categories entry) and categories database 202, wherein each product is linked to one or more categories, (2) a relationship between product information table 218 (attributes entry) and attributes database 204, wherein each product is linked to one or more attributes, (3) a relationship between product information table 218 (preferences entry) and preferences database 206, wherein each product is linked to one or more preferences, (4) a relationship between product information table 218 (related items entry) and product database 200, wherein each product is linked to one or more related products, and (5) a relationship between product information table 218 (merchant entry) and merchant database 210, wherein each product is linked to one or more merchants.

10 Furthermore, the user profiles, which are stored in users database 208, each have relationships with preferences database 206, activity database 216, orders database 214, and professional shoppers database 212. These relationships will be explained in more detail below.

15 Categories database 202 is configured to store a plurality of category and subcategory data, so that each product in the product database can be organized and indexed according to one or more of these categories. Illustratively, with reference to Fig. 2b, a cookbook may be assigned to the category of 'Books' and subcategory of 'Cookbooks'. In addition, if the same cookbook may be deemed appropriate as a Mother's Day present, 20 it can also be assigned to the category of 'Occasions' and subcategory of 'Mother's Day.' According to one embodiment of the invention, there is no limit to the number of categories that can be assigned to a particular product. It is noted that the categories and sub-categories mentioned above can also be referred to in dot notation, such as

Books.Cookbooks or Occasions.Mother'sDay.

Therefore, if a user (shopper) now wishes to locate the above-mentioned cookbook product, he may simply search via the category Books.Cookbooks. Of course, other 5 products may be indexed according to this category as well, providing a more organized shopping experience

With reference to Table I below, a more detailed sampling of categories is provided, according to one embodiment of the invention, illustrating the plurality of categories that 10 products can be assigned to and indexed by. It is noted, of course, that the categories in this table are only illustrations and the system of this invention is not limited as such.

Table I

Categories			
Accessories	Art	Books	Clothing
Coffees	Collectibles	Computers	Cooking and Food
Flowers and Gift Baskets	Fragrance	Games	Gardening
Gift Certificates	Health and Fitness	Home	Infant's
Jewelry	Kid's	Movies	Music
Occasions	Pets	Pre-Teen's	Spirits
Sports	Sundries	Teen's	Toddler's
Accessories Sub Categories:			
Backpacks	Briefcase	Key Rings	Men:
-Belts	-Shoes	-Underwear	-Wallets
Portfolio	Scarves	Sunglass Case	Sunglasses
Umbrella	Women:	-Bras	-Hair
-Handbags	-Shoes	-Underwear	
Books Sub Categories:			
Biographies	Business/Personal Finance		Children's
Cookbooks	Fiction	History	Horror

Mystery	Non-Fiction	Parenting	Politics
Religion	Self-help		

Attributes database 204 is configured to store various attribute values so that notable aspects and attributes can be assigned to each of the products in the product database.

Attributes are different from categories in that attributes represent aspects of a particular

- 5 one product, whereas categories represent groupings by which many products can be sorted and indexed. Illustratively, with continued reference to the cookbook product of Fig. 2b, as discussed above, attributes for that book may include the name of the author, the type of book, such as 'paperback,' or even the type of person typically most interested in such a book, including 'him,' 'her,' or even 'young-adult,' 'student,' etc.
- 10 These attributes are useful for many reasons. First, products can be indexed and searched according to these attributes, similar to categories. Second, the database system is better able to provide recommendations to users (shoppers) if their attributes match the attributes of a product. Also, users or even professional shoppers may find these attributes helpful when determining whether to purchase or recommend the product.

15

Preferences database 206 is configured to store information regarding the preferences of different types of users (shoppers). As will be described in more detail below, a user upon accessing the system is instructed to create a personal profile so that the database system can thereafter provide a selection of personalized product recommendations.

- 20 This personal profile primarily comprises questions related to the preferences that are stored in the preferences database. Indeed, for this reason, the users database is linked to the preferences database via a one-to-many relationship, as described above.

Moreover, the product database is also linked to the preferences database so that administrators, such as professional shoppers, can assign preferences to each of the individual products as well. Notably, unlike users, products don't actually have preferences. Rather, professional shoppers assign such preferences to products based on their professional opinion as to the types of products individuals with a particular preference might be interested in. Thus, if a professional shopper believes that a user with preference A would like products B, C, and D, then the professional shopper assigns or links preference A to each of products B, C, and D. Thereafter, any user searching for a product based on preference A would be recommended one or more of products B, C, and D. For example, preference entries in the preferences database may include, 'Favorite Pastime,' 'Gender,' and 'Book Preference.' A particular user that responds to such preference entries stating that her favorite pastime is cooking or her book preference is cookbooks may receive the cookbook of Fig. 2b as a product recommendation. Indeed, professional shoppers, as shown in Fig. 2b, have assigned the 'FavoritePastime.Cooking' and 'BookPreference.Cookbooks' preferences to this cookbook product since they have previously determined that this product is a good match for individuals having cooking related preferences. In this manner, the database system is able to match users having certain types of preferences with products having the same preferences.

Product information table 218 also comprises a related items entry, which is linked, via a many-to-many relationship, to product database 200. The related items entry is used to

link individual products with other products in the product database based on similarities between the products. According to one embodiment of the invention, there are three types of similar products that the related items entry keeps track of. These include, (1) an up-sell relationship, (2) a cross-sell relationship, and (3) a dual cross-sell relationship.

5 Utilizing these relationships, the database system can recommend such related items (products) to users viewing or purchasing the corresponding item (product).

Up-sell relationships correspond to items that are above and beyond, in price, quality, or other criteria, to the product that it is related to. For example, a rose flower product may 10 be linked, via an up-sell relationship, to a perfume having a rose smell. According to one embodiment of the invention, up-sell relationships are used to recommend related higher quality and more expensive products to users. It is noted of course, that any products can be recommended based on the up-sell relationship, not solely higher quality and more expensive products.

15

Cross-sell relationships correspond to a singular relationship between two products. For example, an individual buying a camera also needs film and camera batteries. Thus, the camera product may be linked, via a cross-sell relationship, to such film and camera batteries. This relationship also enhances the shopping experience by providing the user 20 with all of his or her expected shopping needs.

Dual cross-sell relationships represent the concept, wherein two or more products are linked to each other based on an equivalency between them. For example, a particular

red evening gown can be linked to all the other same model evening gowns in other available colors. Thus, users viewing one such gown can utilize the dual cross-sell relationship to go back and forth between each of the differently colored gowns. Indeed, any two or more products that have a similarity, such as model, type, preference, attribute, category, etc., can be linked based on dual cross-sell relationships.

5 Database system 108 also comprises a merchant database 210, a professional shoppers database 212, an orders database 214, and an activity database 216, as described above. Briefly, merchant database 210 stores a list of all merchants or vendors that provide or 10 sell their products via the database system. If a user (shopper) decides to purchase an item, merchant database 210 may be utilized to forward the user to the correct e-commerce Internet location or alternatively provide a physical address for off-line (non-Internet) products.

15 Professional shoppers database 212 stores a list of all professional shoppers and other administrators of the system. The database, among other things, stores security levels for each of the administrators and is also linked to the users database so that professional shoppers can be assigned to a plurality of shoppers to provide personalized recommendations with or without the assistance of the database system relationships.

20

Orders database 214 stores all internal orders that are handled directly by the system, as well as other e-commerce activity, such as payments for the personal services of a professional shopper. Indeed, as will be described below, individual shoppers can hire

professional shoppers, via this system, for professional opinions and suggestions on shopping, traveling, entertainment, etc. In addition, a local or foreign or other specific type of professional shopper can be requested so that personalized information can be obtained from a person specialized in a type of product and service or particular locale.

5

Activity database 216 stores all user activity, including user input and product searches. Professional shoppers or other administrators of the system may then use this database to determine which products are popular and which database relationships should be modified, etc.

10

With reference to Fig. 3, a user interface 300 is shown, according to one embodiment of the invention, for use by the shoppers (users) of this system. Notably, interface 300 is typically provided to users 118a-118c via interface component 114. User interface 300 comprises a plurality of display icons 302-312 each employed for access to different sections of the personalized shopping system. Specifically, such display icons include I-Shop display icon 302, Gift-Shop display icon 304, Quick-Shop display icon 306, Pro's-Shop display icon 308, Personal Shopper display icon 310, and Celebrity Picks display icon 312.

20 Briefly, the I-Shop section provides means for individuals to quickly and efficiently shop for themselves by searching products that most closely match their profiles and preferences. Indeed, as described above, the I-Shop section responds to a user search request by contacting the database system to match the user's profile, as well as any

other supplied criteria, with corresponding products from the database. It is the task of the I-Shop section to provide users with products recommendations that are personalized to their individual preferences and interests. Such recommendations are typically generated by the database system via an automated process, as described in more detail 5 herein.

It is noted that this process of recommending personalized products to users via the database system can also be modified based on manual input provided by the professional shoppers. Thus, according to one embodiment of the invention, certain 10 search results (product recommendations) can be first be forwarded to a live person, such as a professional shopper, who then modifies the results and sends the modified results to the user. This technique can provide the user with different levels of searches, each perhaps offered for a different fee, including (1) an automated search with no input from a personal shopper, (2) a semi-automated search with some input from a professional 15 shopper, and (3) a manual search with full input from a professional shopper and no assistance from the database system relationships. As will be described below, a full manual professional shopper search is provided via the professional shopper section of this system, according to one embodiment of the invention.

20 The Gift-Shop section provides a similar form of personalized shopping, but for gift purchases, such as by searching for products that match the profiles of friends and family. Here a calendar and event set-up feature is provided, as will be described below with reference to Figs. 4c and 4d, which enables shoppers to schedule events and keep

track of shopping excursions. The personalized product search results provided via the I-Shop and Gift-Shop sections are typically based on the category, preference, and attribute associations made in the database system, as described above. Notably, the Gift-Shop section is particularly desirable because it enable users to execute multiple profile attribute searches, based on the multiple profiles entered for each of the user's friends and family members, etc.

It is noted that in accordance with one embodiment of the invention, the display allows a user to store a profile comprising preferences and individual characteristics. In accordance with another embodiment of the invention, the system allows a user to store profiles comprising preferences and individual characteristics of others including friends and families as will be explained in more detail below. In yet another embodiment of the invention, users may allow other users to access their profiles by disclosing an authorization code or pal code. Each user who has authorization to access another user's profile may then conduct a search for products and services for the other user based on the accessed profile information.

The Personal shoppers section comprises one of many possible interactions with a live professional shopper. Depending on the user's (shopper's) needs, he or she may consult or communicate with a professional shopper for e-commerce products/services, for off-line shopping needs, or even for local or remote concierge services, wherein a professional shopper with particular expertise of a local area may be consulted. Here, the professional shoppers may or may not utilize the database system relationships for

assistance with the selection of their recommendations. According to one embodiment of the invention, a flat fee is charged for each search request sent to a professional shopper, regardless of the amount of time or sophistication of the search. Of course, it is understood that any other fee structure can be implemented as well.

5

It is noted that the professional shoppers section can provide interaction with many different types of professional shoppers (i.e. local or international concierges). For example, the system can be configured to contact professional shoppers from many different physical locations. Therefore, a user from New York, for example, may contact 10 a professional shopper also from New York to get expert advice on local shopping. Similarly, a user from New York can specifically contact a remote professional shopper in another city or country to get expert shopping advice and services for that location. Indeed, according to one embodiment, the system of this invention can connect users 15 with administrators or professional shoppers anywhere around the world to get expert advice or purchase products and services on anything, including shopping, renting, traveling, entertainment, eating, culture, religion, education, etc.

In accordance with yet another embodiment of the invention, users can contact professional shoppers on this system for product recommendations for a party or 20 reception. The recommendations may list specific types of wine, flowers, food recipes, ingredients, caterers, etc.

The Quick-Shop section is configured with more detailed search tools, so that individuals

who know what they wish to purchase can quickly find the precise products or services. For example, the Quick-Shop section allows users to search for products by type of item, by brand name, by merchant, etc.

5 The Pros' Shop Section lists general product recommendations that are not necessarily personalized to any individual user. Rather, this section offers gift ideas and other products that professional shoppers believe to be in style, part of the latest technology, etc. Similarly, the Celebrity picks section also provides general product recommendations, typically by celebrities, or guest writers, where the latest products and

10 gift ideas are displayed for users to view or purchase.

It is noted, that according to other embodiments of the invention there may be additional sections and services offered by the system. For example, according to one embodiment of the invention, there may also be a Window shop section, which allows customers to browse through various merchants and learn about these merchants' offerings. The

15 section may include promotional vehicles and opportunities for merchants to showcase the uniqueness of their business.

In addition, as will be described below, a plurality of professional shoppers employ the

20 system as affiliates. Such affiliate professional shoppers may be accessible via the system to any user who requires their services or expertise. The system then associates a referral fee based on the transaction performed between the affiliate professional shopper and the user. The affiliate professional shopper may be located remotely from the user in

another city or country and can provide concierge type services for the user

Accordingly, shoppers can access the personalized shopping system of this invention via interface component 114, such as with user interface 300, in order to create a profile and 5 search for products via one of the above-mentioned sections. In addition, should a shopper wish to interact with one or more live professional shoppers, he or she may do so by communicating with the professional shopper via professional shopper interface component 116, or by some other means, such as direct e-mail. Once a shopper has created a personal account, he or she may instruct the system or a live professional 10 shopper to seek out products that best match his or her preferences.

Illustratively, with reference to the flow diagram of Fig. 3b, the steps that may be performed when a user (shopper) enters the home page of Fig. 3a will now be described in more detail, according to one embodiment of the invention. In addition, reference will 15 be made to figs. 4a-4f and 5a-5c, which illustrate various interfaces that may be provided to the users throughout the system of this invention, according to one embodiment.

Initially, a user accessing the system from home page user interface 300 has a plurality of choices, as described above. These include, among other choices, accessing the I- 20 Shop section at step 322, the Gift-Shop section at step 324, the Personal Shopper section at step 326, and the Quick-Shop, Pros' Shop section 328, and Celebrity Picks sections at step 328.

At the I-Shop section, of step 322, the system allows individual users to, among other things, set-up or view their profile at step 330, execute a search based on their user profile at step 332, or even view event schedules, via the calendar system at step 334. As described above, users can enter profiles and execute searches here to retrieve 5 personalized e-commerce recommendations from the database system. According to one embodiment of the invention, users can also access the calendar system here to view shopping schedule events for friends and family members, which will be described in more detail below with reference to Gift-Shop section.

10 With reference to Fig. 4a, a search user interface 400 is shown, where the search process of step 332 (Fig. 3b) can be employed. Illustratively, the user first enters the identity of the person for whom the search is being executed. If the user is doing a search for herself, then she enters her own profile identification. If the search is being executed for gifts for friends or family members, etc., then their profile identification is entered.

15 Notably, any given individual can have more than one profile. Thus, an individual can, for example, conduct searches with different profiles based on differing moods of preference changes, etc. The results for such a search are provided to the user at the bottom of interface 400, as shown.

20 Of course, before a search can be executed for a particular individual, a profile for that individual must be created. The process of setting up a profile and corresponding preferences at step 330 is illustrated with reference to Figs. 4b-4f. Fig. 4b shows interface 402, where the initial profile information is entered, including name, address, e-

mail, and other contact information, as well as passwords, usernames, etc. Depending on the information entered at interface 402, the system provides the user with a plurality of preference queries, as shown in figs. 4c-4f. For example, men and women as well as children of different ages can be provided with different queries, as well as people of 5 differing cultures, locations, etc. According to one embodiment of the invention, females are provided with the queries as shown on interfaces 404 and 406, of figs 4c and 4d, respectively. In addition, according to one embodiment of the invention, males are provided with the queries as shown on interfaces 408 and 410, of figs. 4e and 4f, respectively.

10

Briefly, with reference to Figs. 4c and 4d, a plurality of female preferences is shown. Illustratively, a female user may inform the system that she likes Blues/Jazz as a music preference, tennis as a sport preference, cooking as a favorite pastime, and comedies as a movie preference. Further, that female user may also inform the system that she is sized 15 to wear a small casual shirt, a size 2 suit or dress, a small casual skirt or pant, a 7-8 shoe size., and for each item the user may specify a preferred list of merchants or vendors etc. The system records such information for future personalized product recommendations. For example, if that woman later accesses the I-Shop section to search for a skirt, the system knows to specifically retrieve only skirts with a small size from a particular list of 20 vendors. Similarly, the same woman looking for recent music recordings will primarily be shown blues/jazz music. In this fashion, the products that are recommended by the system correspond to the preferences of the user.

It is noted as well, that more complex preferences can be entered into the user profiles and more detailed product recommendations in turn can be provided by the system. For example, users can provide the system with complex personality traits, taste preferences, background, experience, etc., wherein the system reacts to the information by providing 5 personalized recommendations that correspond to the supplied data. According to one embodiment, live professional shoppers continuously interact with and update the system to ensure that the products that are recommended are in tune with the users' preferences.

At the Gift-Shop section, of step 324, the system enables users to set up profiles for 10 friends and family members and also create event and shopping excursions based on birthdays, anniversaries, or other occasions. With reference to Fig. 5a, the main web page interface 500 of the Gift-Shop section is shown, according to one embodiment of the invention, where profiles can be created via profile link 502, events can be established via event links 506, the calendar system can be accessed via calendar link 15 504, etc. As mentioned earlier, a user with an authorization code to access another user's profile can dispose with the process of setting up a profile for a friend and instead access the friend's profile via the authorized access code or pal code.

At step 336 the users may establish profiles individually for a plurality of friends and 20 family members, such as by selecting profile link 502. Thus, when shopping for gifts, or at other occasions, users can utilize these profiles to find products that personally match the profile of a particular friend or family member.

Indeed, at step 340, events can be established so that individual users can be reminded when and for whom gift purchases are needed. With reference to Fig. 5c, interface 520 is shown as one user interface embodiment for inputting event information in order to establish such an event. Once events have been created, the calendar system can be 5 accessed at step 334 for monitoring or adjusting the events that were created at step 340. Here, a monthly, weekly, daily, or other view can be provided so that users have a visual perspective of upcoming events and shopping excursions. With reference to Fig. 5b, interface 510 is shown, for displaying a calendar interface display 512, according to one embodiment of the invention. Notably, a reminder system can be provided, wherein at 10 step 342 the system reminds users of approaching shopping events. According to one embodiment, such a reminder system can return reminder results to users by e-mail or notify users when they access the system. The reminders may include product recommendations based on the profile of the gift recipient, the selected price range, and the type of event.

15

At the personal shopper section, of step 326, the system enables users to directly communicate with live professional shoppers, or alternatively submit search requests for manual processing by such professional shoppers. These tasks are employed at step 328. Thus, when executing a complicated search or looking for a more personalized product 20 recommendations, direct communication with a professional shopper at step 328 is possible.

Thus, after conducting a search at step 324, establishing an event at step 340, or

contacting a professional shopper at step 338, etc., a plurality of product recommendations are forwarded to the user for viewing at step 344. According to one embodiment, the products are forwarded to users via e-mail. According to another embodiment the products are forwarded to an on-line Internet user account, wherein the 5 user must access his or her account to view the recommendations. In addition, the product recommendations can be provided with hypertext links to enable users to quickly access the corresponding e-commerce sites should they wish to purchase the product(s). Indeed, if the user is satisfied and wishes to purchase one or more of the products, he may continue to the e-commerce section at step 346.

10

At step 327, Local Shop / International Shop section is accessed, wherein similar to the personal shopper section, users may communicate with professionals for assistance with purchasing products or fulfilling service requests. According to one embodiment of the invention, local / international shop section comprises shoppers not employed by the 15 system, but rather freelancers or other external service providers. As such, the system of this invention may take a commission or other fee in exchange for providing the connection and communicative environment between the users and local / international shoppers. With reference to Fig. 5d, a main web page 560 for the local shop section, according to one embodiment of the invention, is shown.

20

As described above, local / international shoppers may have particular expertise with a specific locale or type of service. Thus, an individual traveling to a particular state, city, or foreign country, for example, can contact a local / international shopper who has

experience with that destination for help with shopping, hotels, restaurants, or even more specific needs, such as ski rentals, scuba gear rentals, ticket purchases, boat rides, etc. With reference to Fig. 5e, a sample interface web page 580 of a professional shopper is shown.

5

It is noted, according to one embodiment of the invention, that the database system, via the administration database, keeps track of all services and product recommendations offered by each professional shopper. In this manner, the system can track the professional shoppers activity and charge the appropriate fee. Furthermore, statistical information can be offered to users to gauge the reliability and rating of each shopper.

10

With reference to the flow diagram of Fig. 6, a shopper is described accessing the system via interface component 114 in order to create a personalized profile and execute a search for personalized e-commerce product recommendations.

15

Initially at step 600, the user (shopper) logs on to the system Website and selects his or her desired shopping experience. As described above, such shopping experiences comprise the I-Shop section, the Gift-Shop section, the Personal Shopper section, etc. If the user selects the I-Shop or Gift-Shop sections, then the system forwards the user to step 602, below. If the user selects the personal shopper section, the system forwards the user to step 610.

20

At step 602, if the user is new to the system, he or she first establishes a profile along

with preference information. These preferences indicate what hobbies or personal interests an individual may have. Also, the preferences provide the system with the user's clothing sizes, culture, background, etc. Thus, the system can potentially query the user of nearly every interest and personal aspect so that he or she is as a unique part 5 of the system, different and distinct from nearly all other users.

At step 604, the user provides the system with his or her shopping request. Here the user enters the particular criteria for the search. For example, if the user is looking for a sweater he or she indicates so as a criterion in the search. Furthermore, the user may 10 enter other criteria, such as price information, brand information, etc.

At step 606, the system searches the database system and retrieves the personalized product recommendations for the user. As described above, the personalized recommendations are based on matching the profile and preferences of the user with 15 similar preferences, attributes and other criteria associated with the plurality of products in the database. Thus, if a user is searching for books, and that user has previously informed the system that he or she has a preference for mystery books, the system will retrieve product recommendations that mostly relate to mystery books. Specifically, the system matches the user book preference of 'mystery' with book products in the database 20 that are associated with the preference or 'mystery.' A professional shopper may manually intervene with the automated search process, according to one embodiment of the invention, in order to modify the search results if necessary.

In addition to the product recommendation returned by the database system, the database may also provide related items from the related items field of product information table 218, as described above. Thus, the system can recommend items via the up-sell, cross-sell, or dual-cross sell relationships stored by the related items field, as discussed above.

5 For example, a mystery book recommended by the system may have an up-sell relationship with a movie based on that book, or to a computer software program associated with the book's author. Further, cross-sell relationships may recommend bookmarks, book lights, or other products needed for reading. The dual cross sell relationship may recommend equivalent items, such as other mystery books by the same 10 author, or other books based on the same mystery theme.

At step 608, the user views his or her product recommendations. Notably, the user may have previously contacted a personal shopper, at step 610, wherein such product recommendations are the result of a manual or semi-automatic search. Alternatively, the 15 user, at step 612 determines whether he or she is satisfied with the product recommendations. If not, then the user may modify the search at step 614. If yes, then the user may purchase the product at step 616, and optionally provide feedback to the system at step 618. Notably, the system of this invention, according to one embodiment, can also be provided with an intelligence component, as shown at step 614, for learning 20 and correcting the mistakes associated with bad product recommendations. Thus, when a large number of users are dissatisfied with one or more product recommendations the system may re-assign that product to be linked with a different preference or alternatively remove the product from future recommendations as an unpopular item.

With reference to Fig. 7, a flow diagram of a professional shopper accessing the system to respond to user (shopper) requests is described, according to one embodiment of the invention.

5

Initially, at step 700, the system enables a user, referred to here as User A, to access to the system website and go to the Personal Shopper section. User A then submits a search request or other shopping related communication to a professional shopper, referred to here as Professional Shopper B. Notably, according to one embodiment of the invention, the system allows users to specify the particular professional shopper that will respond to 10 their request.

At step 702, Professional Shopper B accesses the system and views all active user requests. According to one embodiment of the invention, an administration user 15 interface is provided so that professional shoppers and other administrators can view shopping requests and otherwise interact with users. At this step, Professional Shopper B selects the search request from User A.

At step 704, the system forwards Professional Shopper B to a request detail interface 20 page, or other interface, where User A's request can be fulfilled. According to one embodiment of the invention, the request detail interface page is a web page with access to the products from the database system.

At step 706, Professional Shopper B opens a virtual shopping basket for storing User A's product recommendations. Notably, more than one shopping basket can be opened. Specifically, a different shopping basket can be used to separate products that are sold locally by the system from products that are sold externally. Also, multiple shopping 5 baskets can be used to separate different types of product recommendation, such as manual recommendations from semi-automatic system recommendations, etc.

At step 708, Professional Shopper B searches for products that satisfy User A's search request and places those products in User A's shopping basket. Notably, depending on 10 the search request, Professional B may search the database system, the Internet, or other on-line or off-line source to satisfy the request.

At step 710, Professional Shopper B finishes the search and closes the shopping basket. The product recommendations are then forwarded to User A. According to one 15 embodiment of the invention, e-mail is used to forward the recommendations to User A. Professional Shopper B also notifies the system that the search request has been executed, wherein the system then charges User A for the service, if a fee was not already paid. In addition, the system removes User A's request from the administration 20 user interface.

20

At step 712, the system forwards the product recommendations to User A, as well as an e-mail confirmation of the transaction to both User A and Professional Shopper B. At step 714, User A may re-contact Professional Shopper B if he or she is not satisfied with

the product recommendations or purchase the product if satisfied.

The method of using personalized electronic commerce (e-commerce) shopping system 100 to provide personalized e-commerce recommendations as described above, 5 according to one embodiment of this invention, will now be explained with reference to FIG. 8, which illustrates a flow diagram of the relevant steps used by the system of this invention.

Initially, at step 800, the system allows a new user to access the system and enter his 10 profile information. Such profile information may include age, sex, location, etc. Based on the profile information that was entered, the system then, at step 802, retrieves a plurality of preferences questions for the user to answer, as described above. Once 15 complete, the users profile and preferences are stored in the system, at step 804. At step 806, the system also allows users to optionally enter profile information for friends and family members.

Thereafter, once profiles have been established, the user may execute searches, at step 20 808, to retrieve product recommendations based on the user's preferences. Also, product recommendations can be retrieved based on preferences of friends and family members. The search process is illustrated via steps 810-814, wherein the system respectively retrieves the profile preferences corresponding to the individual that the search is for and 25 the system matches the profile preferences with product preferences from the database system.

Once the user receives his or her product recommendations, some or all of the products may be purchased at step 816. At step 818, the system may record feedback and other activity so that the product relationships can be modified for future searches.

5

It is noted that there are many additional embodiments of this system that have not been described herein. For example, incentives can be provided to users to encourage them to use the system. These incentives may include cash rewards, airline mileage based on purchases, shopping sprees, e-mail promotions, etc.

10

Furthermore, additional devices can be utilized to keep track of user activity. For example, a Linkshare device can be employed that keeps track of user activity, storing such activity in the database. According to one embodiment, the Linkshare device is configured to store such data in the orders database and the activity database.

15

According to yet another embodiment of the invention, various forms of interaction other than e-mail can be offered to the users of the system. For example, an on-line video system arrangement can be provided, in order to allow live video communications between users and professional shoppers. In addition, the product recommendations can be provided via a physical concierge service, wherein the products are physically delivered to the user for inspection, rather than forwarding the user hypertext links to view the products over the Internet.

Thus, while there have been shown and described and pointed out fundamental novel features of the invention as applied to alternative embodiments thereof, it will be understood that various omissions and substitutions and changes in the form and details of the disclosed invention may be made by those skilled in the art without departing from the spirit of the invention. It is the intention, therefore, to be limited only as indicated by the scope of the claims appended hereto. It is to be understood that the drawings are not necessarily drawn to scale, but that they are merely conceptual in nature.

Claims

What is claimed is:

1. A method for providing personalized e-commerce recommendations comprising the steps of:
 - 5 generating a database having a plurality of products, wherein each of said products are associated with at least one preference criteria from a plurality of preferences criteria;
 - 10 storing information associated with a user profile for at least one user based on a selection of preferences by said user from said plurality of preferences criteria; and
 - 15 providing product recommendations to said at least one user corresponding to said created profile.
2. The method of claim 1, further comprising the step of associating said products of said database with at least one category and attribute.
3. The method according to claim 2 further comprising the step of associating said products of said database with at least one related item.
- 20 4. The method of claim 1, further comprising the step of

providing access to said user to an online professional shopper.

5. The method of claim 1, further comprising the step of
reorganizing said products of said database based on feedback from
said user.

6. The method of claim 4, further comprising the step of
requesting said professional shopper to conduct a search for a product and to
provide the results of the search to said user.

10

7. The method of claim 1, wherein said preferences criteria comprises
at least one of clothing sizes, musical preferences, sport preferences, favorite
pastime, movie preferences, book preferences, and birth month.

15

8. A method for providing personalized e-commerce gift
recommendations, comprising the steps of:

20

generating a database having a plurality of products, wherein each of
said products are associated with at least one preference criteria from a plurality
of preferences criteria, said products further associated with at least one occasion
criteria from a plurality of occasions criteria:

creating a profile for at least one individual, wherein said individual is
a potential gift recipient of a user of said system;
storing at least one event date corresponding to said at least one

occasion criteria; and

providing a plurality of product recommendations to said user based on said profile and said corresponding event.

5

9. The method of claim 8, further comprising the step of displaying on said user's terminal said event on a calendar.

10

10. The method of claim 8, further comprising the step of providing said product recommendations to said user at a date specified by said user that corresponds to the date of said event.

15

11. The method of claim 8, further comprising the step of allowing said user to access on-line professional shopper so as to request said product recommendations.

20

13. The method of claim 8, further comprising the step of associating said profile with a plurality of preferences criteria.

14. The method of claim 8, further comprising the step of allowing said user to access said database via the Internet.

15. The method of claim 8 further comprising the step of providing said product recommendations to said user via e-mail.

17. The method of claim 8 further comprising the step of
corresponding said product recommendations to a search
criteria provided by said user.

5

18. A method for providing personalized e-commerce
recommendations to a plurality of users having access to an e-
commerce system, said method comprising the steps of:
generating a first database having information relating to a
10 plurality of product categories and subcategories;
generating a second database having information relating to a
plurality of product attributes;
generating a third database having information relating to a
plurality of preference criteria corresponding to a plurality of user
15 preferences;
generating a forth database having information relating to a
plurality of merchants;
generating a product database having information relating to a
plurality of products, wherein each of said products are associated
20 with at least one of said first, second, third, and forth databases.

19. A method in accordance with claim 18 further comprising the step of creating a profile information in a user database corresponding to each of said users, wherein said profile information comprises information relating to user characteristics and product preferences.

5

20. A method in accordance with claim 19 further comprising the step of creating a profile information in a user database corresponding to at least an individual defined by said user.

10

21. A method in accordance with claim 19 further comprising the step of providing access to a first user, profile information corresponding to a second user based on an authorization access code.

15

22. A method in accordance with claim 19 further comprising the step of providing access to said users a plurality of on-line shoppers.

20

23. A method in accordance with claim 22 further comprising the steps of:
receiving a selection of one of said shoppers from at least one of said users that provide a shopping assignment to said selected

shopper; and

5 said selected shopper providing a recommendation for products in
response to said shopping assignment received from said user.

24. A method in accordance with claim 23 further comprising the
step of providing communication between said user and said
selected shopper via e-mail.

10 25. A method in accordance with claim 23 further comprising the
step of providing communication between said user and said

selected shopper via an online multimedia chat session.

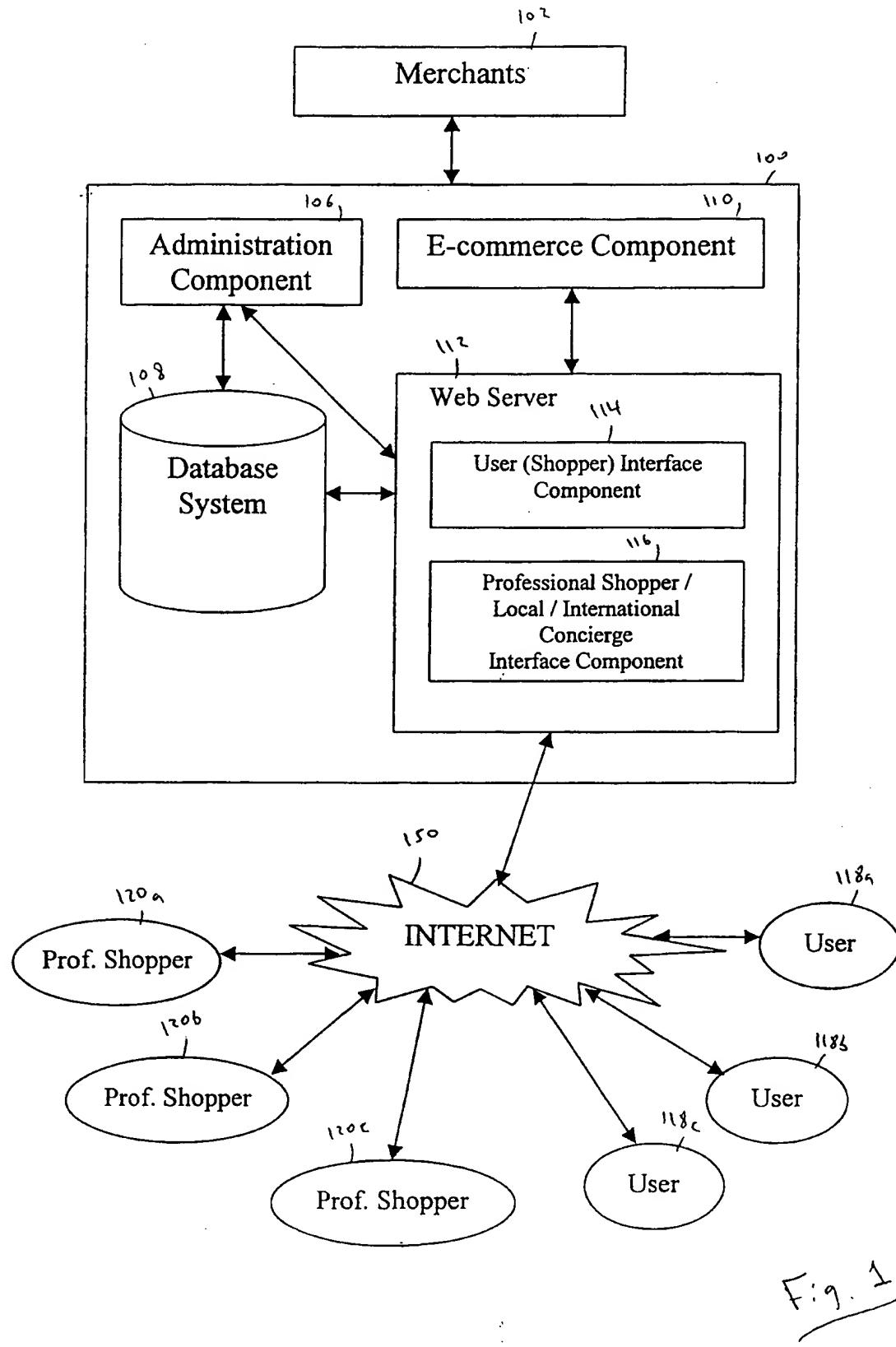
15 26. A method in accordance with claim 23 wherein said step of
providing a recommendation further comprises the step of

searching said generated product database.

20 27. A method in accordance with claim 23 wherein said step of
providing a recommendation further comprises the step of
searching the Internet.

28. A method in accordance with claim 23 wherein said step of
providing a recommendation further comprises the step of
locating a product by a vendor located in the same geographic

location as the geographic location of said selected shopper.



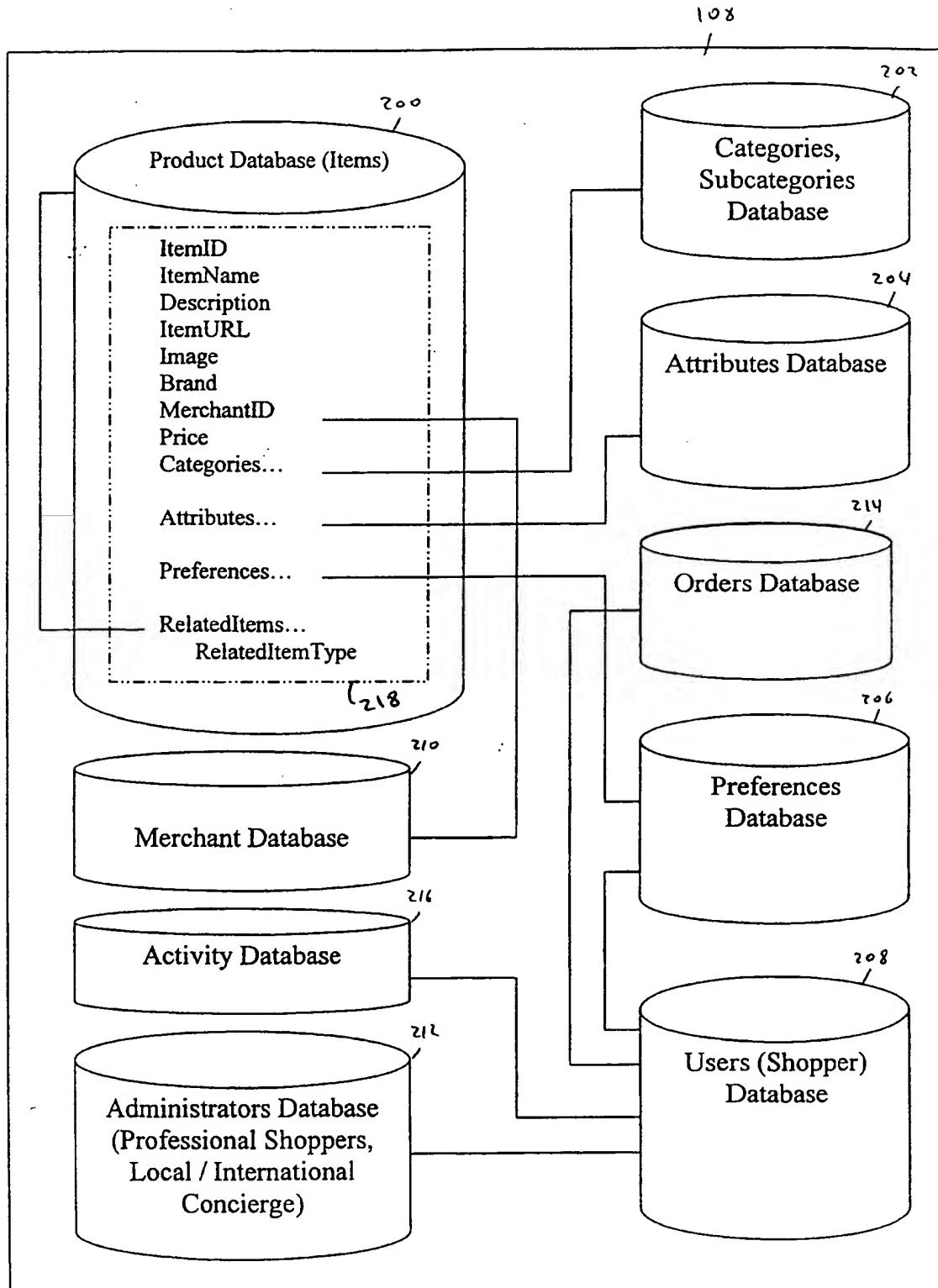


Fig. 2

Admin/ProShoppers interface

AttributesAdd New ItemCategories

* Required

Items

* Item:

1,001 Secrets of Great Cooks

Preferences

Trade Paperback, 272 Pages. his invaluable reference gives home cooks access to the secrets that keep professional kitchens running smoothly and

RequestsDescription:Merchants

* URL:

<a href="http://click.linksynergy.com/fs-bin/stat?id=JTS3uFpmWKQ&offerid=6424&type=2&subid=0&url=http://search.borders.com/fcgi-

Users

* Image

Reports

URL:

http://search.borders.com/web_images/products/00/2/71/c/2710843_c.gif

LocalImage :

* Brand:

Berkley

* Merchant:

Borders.com

* Price:

\$9.60

Categories:

Books>Cookbooks

Occasions>Mother's Day

Preferences:

Favorite Pastime>Cooking

Gender>Female

Book Preference>Cookbooks

Occasions>Mother's Day

Attribute Values:

Her

Him

Jean Anderson

Paperback

Fig. 2b

Related Items:

Product Name	Related Item Type	Brand	Price	Merchant
Cookware Sets by Falk Culinair	Upsell	Cookware Sets by Falk Culinair	\$870.00	Cooking.com

300

PROFESSIONAL SHOPPER.COM - MICHAEL JACKSON

Merchants **Sample Tour** **Our Services** **PGCards** **Who We Are** **Contact Us** **My News'Shop**

http://www.professionalshopper.com/ui/default.htm

ProfessionalShopper.com

301 → i*SHOP

Welcome to Professional Shopper.com...

the Web's ultimate shopping service, where you'll receive uniquely personalized gift ideas. Exclusive brands. Celebrity® Picks. Professional shoppers. And best of all - an unrivaled shopping experience you won't find elsewhere. Indulge in the opulence now!

301 → Quick *SHOP

301 → RO'S SHOP

301 → Personal * Shopper

312 → Celebrity *PICKS

Want to treat yourself to something new? Register here to shop against your unique profile now!

Need a gift for that special someone? We'll do the shopping for you. Register gift profiles now!

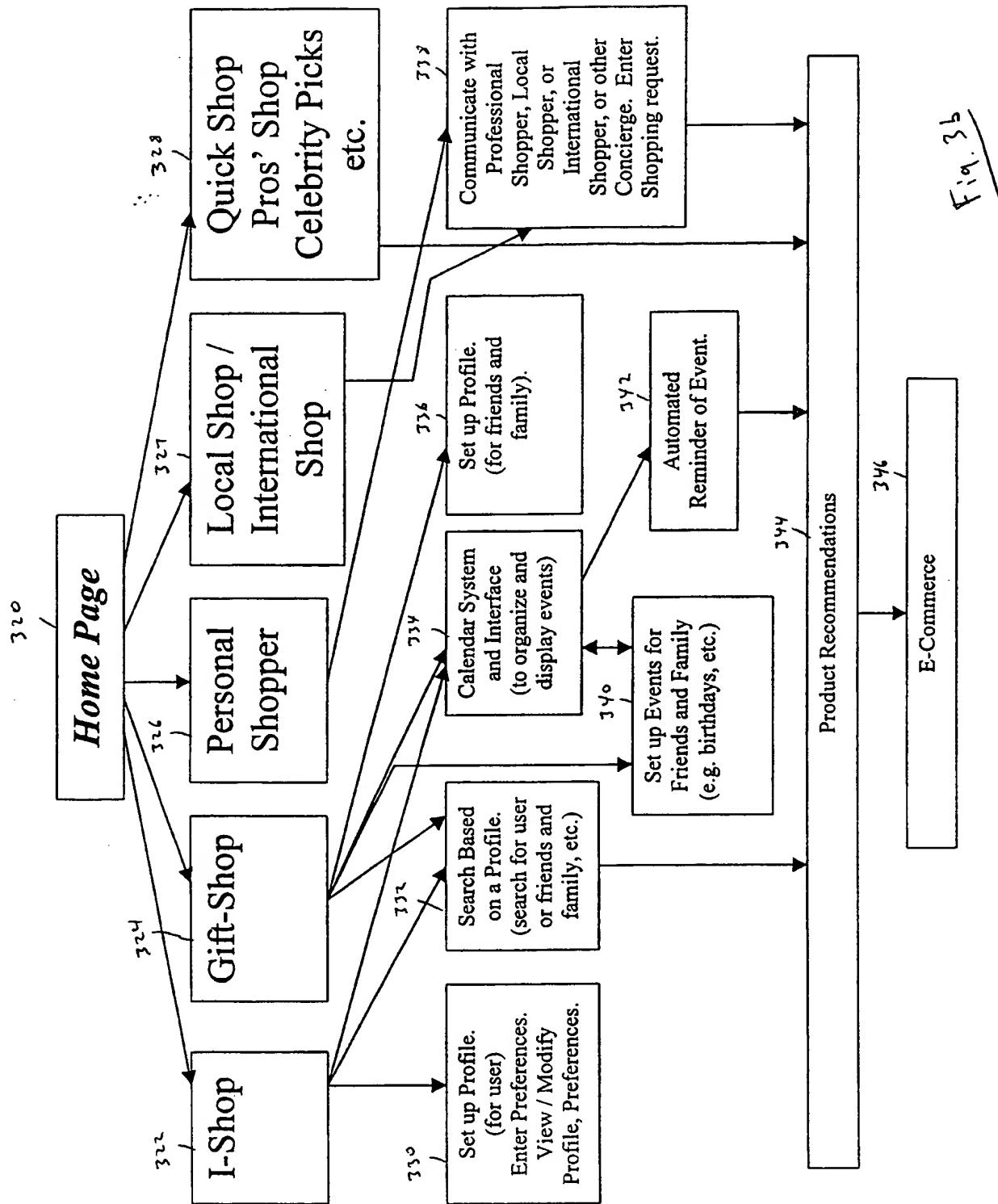
Know just what you're looking for? Click here to shop by brand, item or merchant now!

Curious about what our aficionados suggest? Visit the Pro's SHOP now!

Not sure what to buy? Hire one of our experts now!

Want gift ideas from the biggest names in film, television and sports? Check out 'Celebrity Picks' now!

Fig. 3a





i*SHOP

Welcome to i*SHOP

- [Home](#)
- [i*SHOP](#)
- [GIGI*SHOP](#)
- [Quick*SHOP](#)
- [Celebrity*Wishes](#)
- [Pros* SHOP](#)
- [PCmarks](#)
- [ProfessionalShopper](#)

*Working hard and deserve a special treat? i*SHOP lets you customize your own shopping profile and search instantly for the latest items that match your unique interests!*



Search My Pr

To search a preference, select preference, th or, for an advanced search, enter your criteria

Profile Name:

Profile Preferences:

Advanced Search:

Searches on - and, or, near, not,

Merchant:

Price Range:

Genre:

Rating:

1-10 of 4670



Product Name
Honeymooners, The - The Lost Episodes
Abbott & Costello Meet the Monsters - C
Abbott and Costello Comedy Collection
The Deanna Durbin Collection Boxed Se
The Road to Collection Boxed Set
Cookie's Fortune
ED-TV
EdTV
I Went Down
Life

Fig. 47

↳

Welcome to ProfessionalShopper.com

Michele Bongiovanni

> **Setup Your Default Shopping Profile**

Working hard and deserve a special treat? i*SHOP lets you customize your own shopping profile and search instantly for the latest items that match your unique interests!

i*SHOP

Welcome to i*SHOP

Home

i*SHOP

Gift*SHOP

Quick*SHOP

Celebrity Picks

Pros*SHOP

i*Cards

Personal*Shopper

Your First Name

Your Last Name

Email

Address

City

State

Zip

Country

Day Phone

Evening Phone

Fax

Username

Password

Age

Gender

Check here if you would like to receive special offers and news from ProfessionalShopper.com

Fig. 4b

Professional Shopper

Home
 FAVORITES
 GROCERIES
 FAMILY PICTURES
 POST CARDS
 PET CARE
 Professional Shopper

Preferences for My Profile. (female gender)

Highlight object to add or remove selection.

Musical Preferences:

Christian
 Classical
 Comedy
 Country
 Dance

Add
 Remove

Selected Music

Blues/Jazz

Sport Preferences:

Baseball
 Basketball
 Boarding
 Boating
 Camping

Add
 Remove

Selected Sport

Tennis

Favorite Pastime:

Art Collection
 Auctions
 Collectibles
 Computers
 Dancing

Add
 Remove

Selected Favorite

Cooking

Movie Preferences:

Action/Adventure
 Adult Audience
 Childrens
 Dramas
 Education/General Interest

Add
 Remove

Selected Movie

Comedies

Book Preferences:

Audio
 Biographies
 Business/Personal Finance
 Children
 Cookbooks

Add
 Remove

Selected Book

Women's Clothing and Accessory Sizes:

Blouses Size:

Blouse Size 0
 Blouse Size 2
 Blouse Size 4
 Blouse Size 6
 Blouse Size 8

Add
 Remove

Selected Sizes:

Casual Shirts Size:

Petite/Casual Shirt
 Medium/Casual Shirt
 Large/Casual Shirt
 X-Large/Casual Shirt
 XX-Large/Casual Shirt

Add
 Remove

Selected Sizes:

Small/Casual Shirt

Fig. 4c

**Dress Suits,
Skirts & Overcoats sizes:**

Dress/Suit Size 0
Dress/Suit Size 2
Dress/Suit Size 4
Dress/Suit Size 6
Dress/Suit Size 8

Add >
Remove

Selected Sizes:

Dress Pants size:

Dress Pant Size 0
Dress Pant Size 2
Dress Pant Size 4
Dress Pant Size 6
Dress Pant Size 8

Add >
Remove

Selected Sizes:

**Casual Skirts
and Pants sizes:**

Petite/Casual Skirts/Pants
Small/Casual Skirts/Pants
Medium/Casual Skirts/Pants
Large/Casual Skirts/Pants
X-Large/Casual Skirts/Pants

Add >
Remove

Selected Sizes:

Underwear sizes:

X-Small/Undergmt
Small/Undergmt
Medium/Undergmt
Large/Undergmt
X-Large/Undergmt

Add >
Remove

Selected Sizes:

Bra Sizes:

30A Bra
30AA Bra
30B Bra
32A Bra
32AA Bra

Add >
Remove

Selected Sizes:

Shoes sizes:

5-6 Shoe
7-8 Shoe
9-10 Shoe
11-12 Shoe

Add >
Remove

Selected Sizes:

Birthmonth:

February
March
April
May
June

Add >
Remove

Selected Birth

January

Save

Fig. 42



493

Preferences for My Profile. (male gender)
Highlight object to add or remove selection.

Musical Preferences:	Selected Music
Christian	Blues/Jazz
Classical	
Comedy	
Country	
Dance	
Sport Preferences:	
Baseball	Selected Sport
Basketball	Tennis
Boarding	
Boating	
Camping	
Favorite Pastime:	
Art Collection	Selected Favori
Auctions	Cooking
Collectibles	
Computers	
Dancing	
Movie Preferences:	
Action/Adventure	Selected Movie
Adult Audience	Comedies
Childrens	
Dramas	
Education/General Interest	
Book Preferences:	
Audio	Selected Book
Biographies	
Business/Personal Finance	
Children	
Cookbooks	
Men's Clothing and Accessory Sizes:	
Dress Shirts/Short Sleeve:	
14.5 Short Sleeve	Selected Sizes:
15 Short Sleeve	
15.5 Short Sleeve	
16 Short Sleeve	
16.5 Short Sleeve	
Dress Shirts/Long Sleeve:	
14.5-30 Long Sleeve	Selected Sizes:
14.5-31 Long Sleeve	
14.5-32 Long Sleeve	
14.5-33 Long Sleeve	
14.5-34 Long Sleeve	

Fig. 4e

Sports Coats, Suits & Overcoats:

38 Regular
38 Short
39 Regular
40 Long
40 Regular

Add  Remove

Selected Sizes:**Trousers and Belts:**

32" Trouser/Belt
33" Trouser/Belt
34" Trouser/Belt
35" Trouser/Belt
36" Trouser/Belt

Add  Remove

Selected Sizes:**Casual Shirts and Sweaters:**

Small/Casual
Medium/Casual
Large/Casual
X-Large/Casual
XX-Large/Casual

Add  Remove

Selected Sizes:**Underwear:**

Boxer
Brief

Add  Remove

Selected Types:**Shoes:**

7-8 Shoe
9-10 Shoe
11-12 Shoe
13-14 Shoe
15-16 Shoe

Add  Remove

Selected Sizes:

Fig 4f

500
1

Home Welcome to ProfessionalShopper.com
Michele Bongiovanni

PSHOP
GIFTSHOP
Galler*SHOP
Celebrity*Flicks
Prost*SHOP
PCZards
Personal*Shopper



Need help choosing
that perfect gift?
With Gift*SHOP,
you simply fill out a
gift-giving profile,
and we'll return
personalized gift
ideas in a flash!



Set-Up A New Profile
My Calendar —

so2

Saved Profiles:

laura	<u>Modify</u>	<u>Delete</u>	<u>Search</u>	
mackie	<u>Modify</u>	<u>Delete</u>	<u>Search</u>	
mom	<u>Modify</u>	<u>Delete</u>	<u>Search</u>	
Peri	<u>Modify</u>	<u>Delete</u>	<u>Search</u>	
Rob	<u>Modify</u>	<u>Delete</u>	<u>Search</u>	

so6

Fig. 5a

510
↓



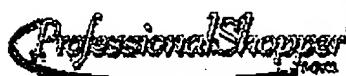
January, 2000

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
2	3	4	5	6	7
9	10	11	12	13	14
16	17	18	19 Nicholas...	20	21
23 Mother In...	24	25	26	27 Rob's Bday	28
30	31 Monthly S...				

[View Previous Month](#) [View Current Month](#) [View Next Month](#)

January 2000 [Set-Up An Event](#) [Search A Profile](#)

Fig. 5b

[Home](#)[FASHOP](#)[GROCERYPICKUP](#)[QuickSHOP](#)[CelebrityPicks](#)[Pros' SHOP](#)[PChords](#)[ProfessionalShopper](#)

Set-Up An Event

Required Field**Event Name:**

(ie. Mom's Birthday)

Description:

(ie. Mom's 50th Birthday)

Event Date:*Reminder Interval:****Email:**

(send my reminder here)

Profile:Fig. 5c

560
VLocal
*SHOP

Welcome to
Local*SHOP

Atlanta

Boston

Dallas

Houston

Jamaica

Key West

Maui

Manhattan

Naples

Washington,
DC**E-concierge**

Busy and need assistance from a professional concierge to help you with the "business of life?" Or, traveling and need help planning your destination activities ahead of time?

We're here to help. Our network of local e-concierges will provide you with all the support you need so you can focus on the important stuff! Click on the area of your choice now!

E*SHOP

Check out our local merchants as well!

Fig. 5d

580
V

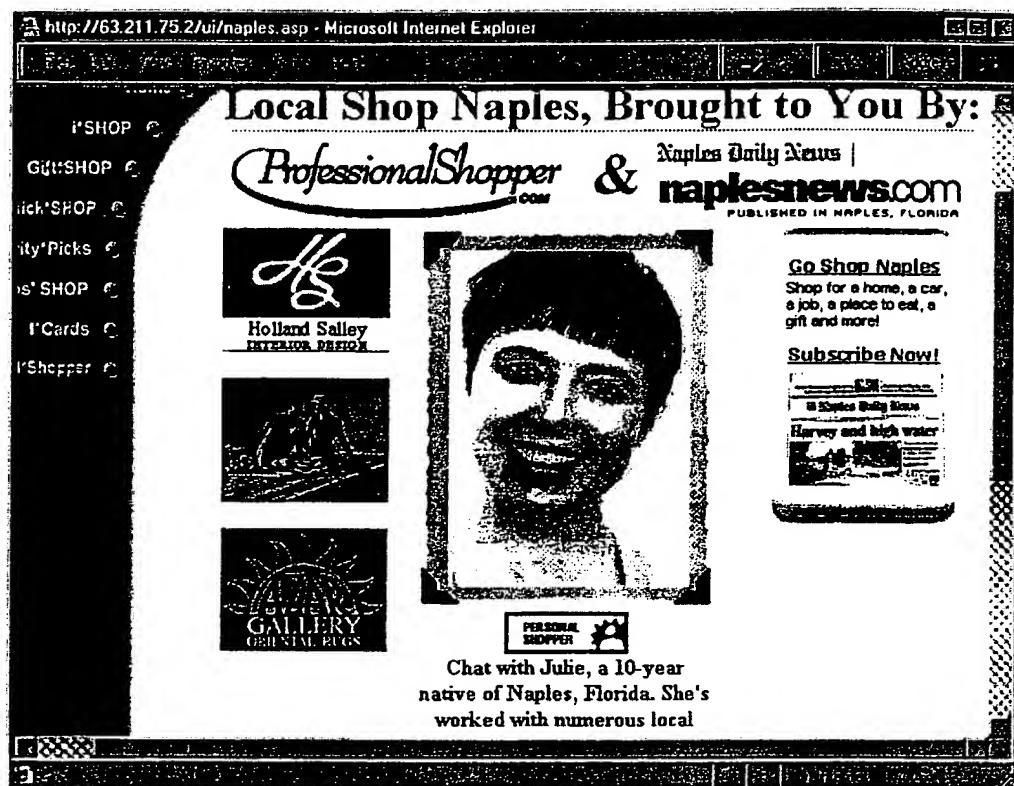


Fig. 5e

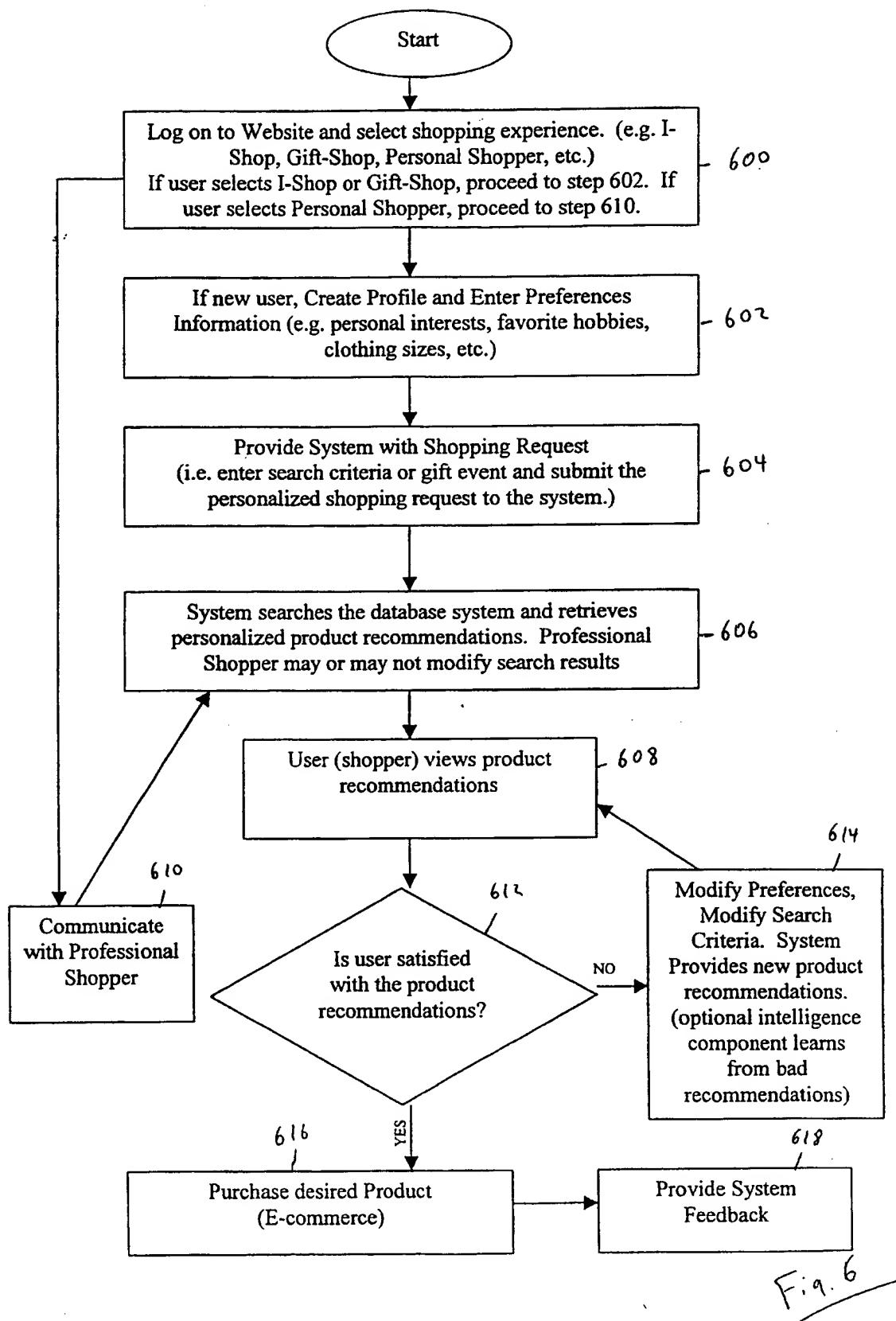


Fig. 6

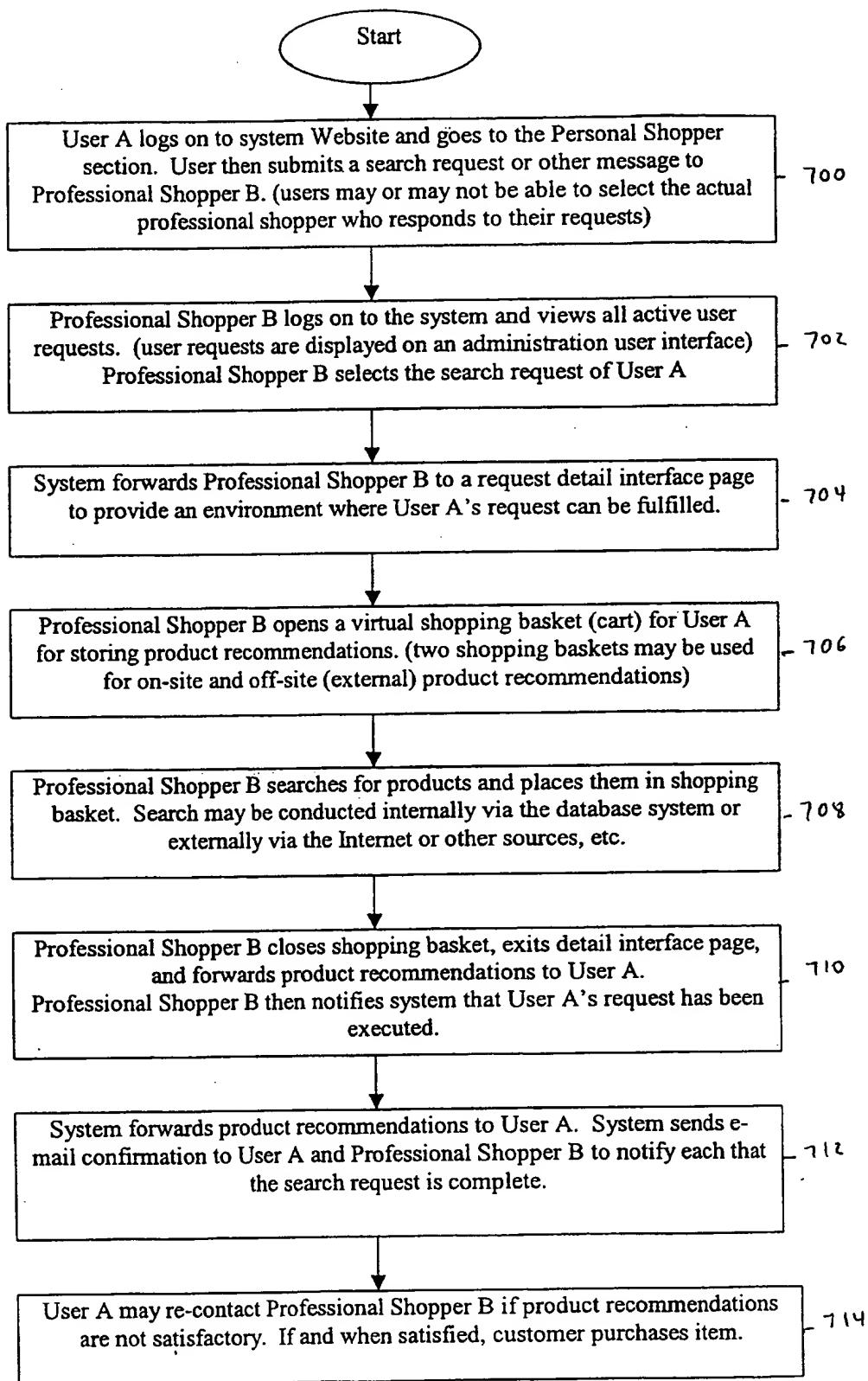


Fig. 1

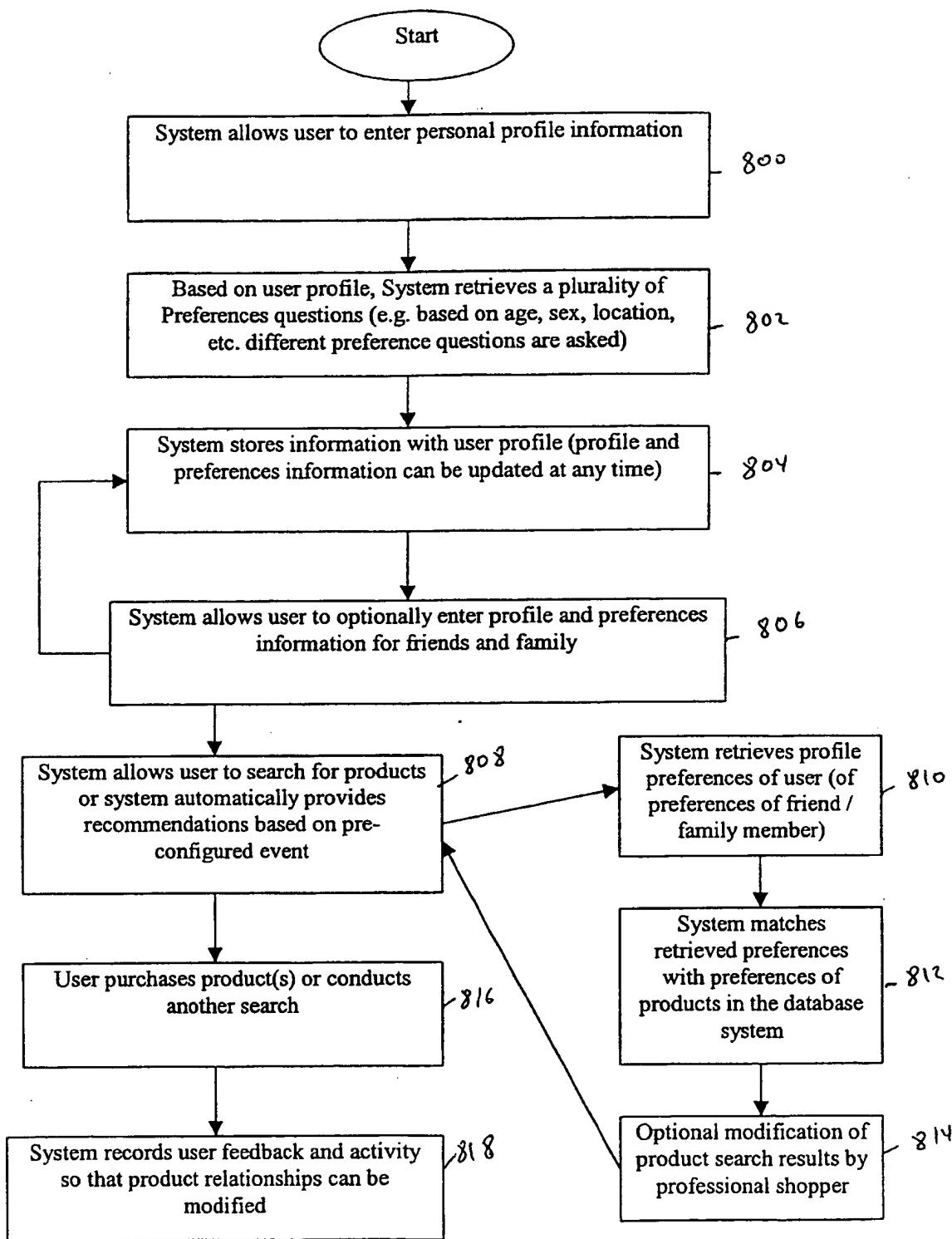


Fig. 8

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/04790

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06P/1760

US CL : 709/224, 709/219, 709/223

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 709/224, 709/219, 709/223

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

WEST

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,T	US 6,064,980 A (JACOBI RT AL) 16 MAY 2000, ALL	1-28
A,T	US 5,884,282 A (ROBINSON) 16 MARCH 1999, ALL	1-28
A,P	US 6,014,644 A (ERICKSON) 11 JANUARY 2000, ALL	1-28
A,E	US 6,055,573 A (GARDENSWARTZ ET AL) 25 APRIL 2000	1-28
A,P	US 5,970,473 A (GERSZBERG ET AL) 19 OCTOBER 1999, ALL	1-28
A,P	US 6,009,410 A (LEMOLE et al) 28 DECEMBER 1999, ALL	1-28

Further documents are listed in the continuation of Box C.

See patent family annex.

•	Special categories of cited documents	*T*	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
A	document defining the general state of the art which is not considered to be of particular relevance		
E	earlier document published on or after the international filing date	*X*	document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
L	document which may throw doubts on priority claims, or which is cited to establish the publication date of another citation or other special reason (as specified)	*Y*	document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
Q	document referring to an oral disclosure, use, exhibition or other means	*&*	document member of the same patent family
P	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

27 MAY 2000

Date of mailing of the international search report

03 JUL 2000

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

GLENTON BURGESS

Telephone No. (703) 305-4792

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.